

Name: _____ Date: _____

Algebra 1B Pd: _____

WWP #8: Standard Form of a Linear Equation

The Situation: Nick runs at an average rate of 8 mi/hr. He walks at an average rate of 4 mi/hr.

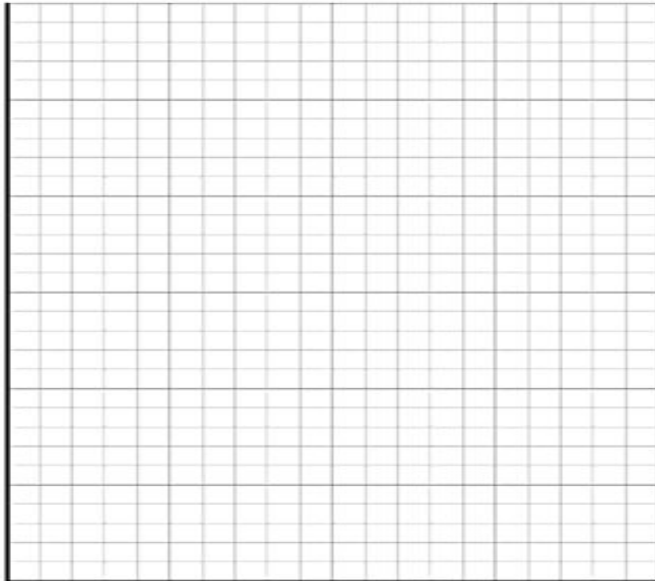
If Nick travels a distance of 24 miles total, we can use the equation below to determine how much time he spent running and how much time he spent walking:

$$8r + 4w = 24$$

Let r = # of hours spent running

Let w = # of hours spent walking

1. Graph your standard form equation using the x- and y- intercepts. (Running: x-axis; walking: y-axis). **Use a straight edge.**



2. Using either your equation or your graph, calculate how many hours Nick spends running if he spends 2 hours walking.

3. Using either your equation or your graph, calculate how many hours Nick spends walking if he spends $\frac{1}{2}$ hour running.

4. Explain your process of answering question #3. Use at least THREE complete sentences and algebraic terms.
